

**Description** Precipitating polyclonal goat antiserum to C3c subunit of monkey complement C3

**Product code** GAMon/C3c

**Biological origin** Goat

**Physical form** Delipidated, heat inactivated, lyophilized, stable whole serum.

**Preservative** No preservative added.

**Immunogen** C3c is the major fragment resulting from the C3 cleavage by C3 convertase and factor i. It is composed of an intact beta chain bound to two fragments of the alpha chain. The protein is isolated and purified from pooled normal monkey serum by precipitation techniques, followed by chromatographical methods.

Freund's complete adjuvant is used in the first step of the immunization procedure.

**Adsorption** Immunoaffinity adsorbed using insolubilized antigens as required, to eliminate antibodies reacting with other monkey serum proteins. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum.

**Identity & Specificity** In immunoelectrophoresis against fresh monkey serum, a single precipitin line is obtained in the beta-1 region representing native C3. Against serum containing partly activated C3, a precipitin line is obtained which extends from the beta-1 into the alpha-2 region, demonstrating a gradient. In old serum containing totally activated C3 a single precipitin line in the alpha-2 region is obtained. Antisera to C3c can also react with the fragments C3b, C3bi and smaller fragments, since they all carry antigenic determinants of the C3c domain. The product does not react with any other proteins component of monkey serum or plasma.

**Cross-reactivity** The antiserum does not cross-react with any other component of monkey plasma. Inter-species crossreactivity is a normal feature of antibodies to plasma proteins since they frequently share antigenic determinants. In addition to a clear reactivity with C3c of other old-world monkeys (*Cercopithecus*, *Cynomolgus* and *Baboon*), this antiserum shows also a fair amount of cross-reactivity to C3C of other species, including chimpanzee and man. **Protein concentration** Total protein and IgG concentrations in the antiserum are comparable to those of normal pooled goat serum. No foreign proteins added.

**Antibody titre** Precipitin titre not less than 1:32 when tested against normal monkey plasma in agar-block immunodiffusion titration.

**Intended use** In precipitating techniques as immunoelectrophoresis and single and double radial immunodiffusion (Mancini, Ouchterlony) to identify the presence of complement C3c or to determine its concentration. The presence of non-precipitating antibodies has not been assayed. This does not exclude the use of the antiserum in non-precipitating antibody-binding techniques if proper controls are included.

Determinations of individual complement components can be very useful in defining the exact location of a defect.

**Directions for use** In immunoelectrophoresis use 2  $\mu$ l monkey plasma or equivalent against 120  $\mu$ l antiserum. In double radial immunodiffusion use a rosette arrangement with 10  $\mu$ l antiserum in 3 mm diameter center well and 2  $\mu$ l plasma samples (neat and serially diluted)

in 2 mm diameter peripheral wells. In single radial immunodiffusion use 1 percent antiserum in the gel.

Packing Vial with 1 ml lyophilized antiserum.

Storage / shelf life Lyophilized at +4°C reconstituted at or below -20°C

reconstituted at +4°C at least 10 years

3-5 years 7 days

Handling The lyophilized antiserum is shipped at ambient temperature and may be stored at +4°C; prolonged storage at or below -20°C. Reconstitute the lyophilized antiserum by adding 1 ml sterile distilled water.

Dilutions may be prepared by adding phosphate buffered saline (PBS, pH 7.2). Repeated thawing and freezing should be avoided. If a slight precipitation occurs upon storage, this should be removed by centrifugation. It will not affect the performance of the antiserum.

Diluted antiserum should be stored at +4°C, not refrozen, and preferably used the same day.

Caution This antiserum should be handled by qualified persons only and appropriate precautions should be taken in its handling and disposal, and of all associated materials. For in vitro research purposes only.

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